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10/706,762	11/10/2003	Daniel R. Caldwell	TI-36721 (032350.B574)	7834

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EXAMINER	
NGUYEN, DUNG V	
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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 10/706,762
Filing Date: November 10, 2003
Appellant(s): CALDWELL ET AL.

Jay M. Cantor
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 22 August 2005 appealing from the Office action mailed 25 March 2005.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

No evidence is relied upon by the examiner in the rejection of the claims under appeal.

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims 11-16 and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Melcer (USPN 6,183,341). Melcer discloses a chemical mechanical polishing monitoring system comprising a peristaltic pump 3 operable to delivery a slurry to a polishing pad 6, a controller 7 operable to send a signal to the peristaltic pump 3 based on a desired volumetric flow rate for the slurry, a rotation sensing device 9 coupled to the peristaltic pump 3 and operable to sense a rotation of the peristaltic pump 3, the rotation sensing device 9 operable to generate a signal indicating of the rotation of the peristaltic pump 3, a computer coupled to the rotation sensing device 9 and the controller 7, the computer operable to receive the signal from the controller 7, the rotation sensing device 9 in order to monitor the peristaltic pump 3 during use, wherein the pump 3 comprises a peristaltic pump, wherein the rotation sensing device 9 comprises an encoder, Melcer inherently discloses a chemical mechanical polishing method comprising sending a signal to a pump 3, delivering a slurry to a polishing pad 6 via the pump, sensing a rotation of the pump 3, generating a signal indicative of the rotation of the pump and comparing the signal in order to monitoring the pump 3 during use (note Fig. 1, col. 1, line 53 to col. 2, line 32, col. 2, line 48 to col. 3, line 23).

Claims 17, 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Melcer (USPN 6,183,341). Melcer discloses the claimed invention as described above. Melcer does not disclose expressly that the rotation sensing device comprises a tachogenerator, a fiber optic detector or a digital counter. At the time the invention was made, it would have been an obvious matter of design choice to a person of ordinary

skill in the art to use a tachogenerator, a fiber optic detector or a digital counter because Applicant has not disclosed that a tachogenerator, a fiber optic detector or a digital counter provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with an encoder, a tachogenerator, a fiber optic detector or a digital counter because each of them perform the same function of sensing the speed of the pump. Therefore, it would have been an obvious matter of design choice to modify Melcer to obtain the invention as specified in claims 17, 19 and 20.

(10) Response to Argument

Appellant argues: "Claim 11, in addition to the controller, a computer coupled to the rotation sensing device and the controller, the computer operable to: receive the drive voltage from the controller; receive the voltage from the rotation sensing device; and compare the voltage to a threshold voltage that is based, in part, on the drive voltage in order to monitor the peristaltic pump during use. No such device is found in Melcer". Melcer discloses all the limitations in claim 11 in Fig. 1, a peristaltic pump 3, a controller and computer 7 coupled to a rotation sensing device 9, in column 2, line 67 to column 3, line 8 as follows: "The controller adjusts the voltage applied to the pump motor to attain the required pump speed. The pump motor speed is monitored by the encoder 9 which senses the speed of the pump or its motor and transmits a corresponding signal representative of the pump speed to the pump controller. The pump controller adjusts its output to drive the motor accordingly. In this manner, the

slurry pump output column may be maintained nearly constant despite significant variation in slurry inlet pressure."

Appellant argues that the instant method of claim 14 is not described in Melcer. Melcer discloses the method of claim 14 as compare to the limitations of claim 14: sending a drive voltage to a pump, the drive voltage based on a desired volumetric flow rate for a slurry, delivering, via the pump, the slurry to a polishing pad ("The pump controller may be set by an operator to maintain a specified flow rate," in column 2, lines 62-63 and "The controller adjusts the voltage applied to the pump motor to attained the required pump speed" in column 2, line 67 to column 3, line 1), sensing a rotation of the pump ("The pump motor speed is monitored by the encoder 9 which senses the speed of the pump or its motor" in column 3, lines 1-3), generating a signal indicative of the rotation of the pump ("and transmits a corresponding signal representative of the pump speed to the pump controller" in column 3, lines 3-4), and comparing the signal to a threshold signal that is based, in part, on the drive voltage in order to monitor the pump during use ("The pump controller adjusts its output to drive the motor accordingly. In this manner, the slurry pump output volume may be maintained nearly constant despite significant variations in slurry inlet pressure." in column 3, lines 5-8).

Appellant argues that the rejection of claims 17, 19 and 20 is without merit. Appellant states in the specification on page 7, lines 28-31 as follows: "In the illustrated embodiment, rotation sensing devise 200 are tachogenerators, which sense a rotation of a rotating shaft and generate a signal indicative of the rotation speed of the rotating shaft. One example of a tachogenerator is a dynamo Tachymetrique, type no. RE 012

1CB0 02CA, manufactured by Radio-Energie of France. However, rotation sensing devices 200 may be any suitable devices that sense a rotation of slurry pumps 108, such as encoders, fiber optic detectors, digital counter, or other suitable rotation sensing devices". Ordinary skill in the art would understand that tachogenerator, encoder, fiber optic detector and digital counters are equivalent devices. One will select one of these equivalent devices for use as a sensing device that senses the rotation of a pump.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Dung Van Nguyen

DUNG VAN NGUYEN
PRIMARY EXAMINER

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